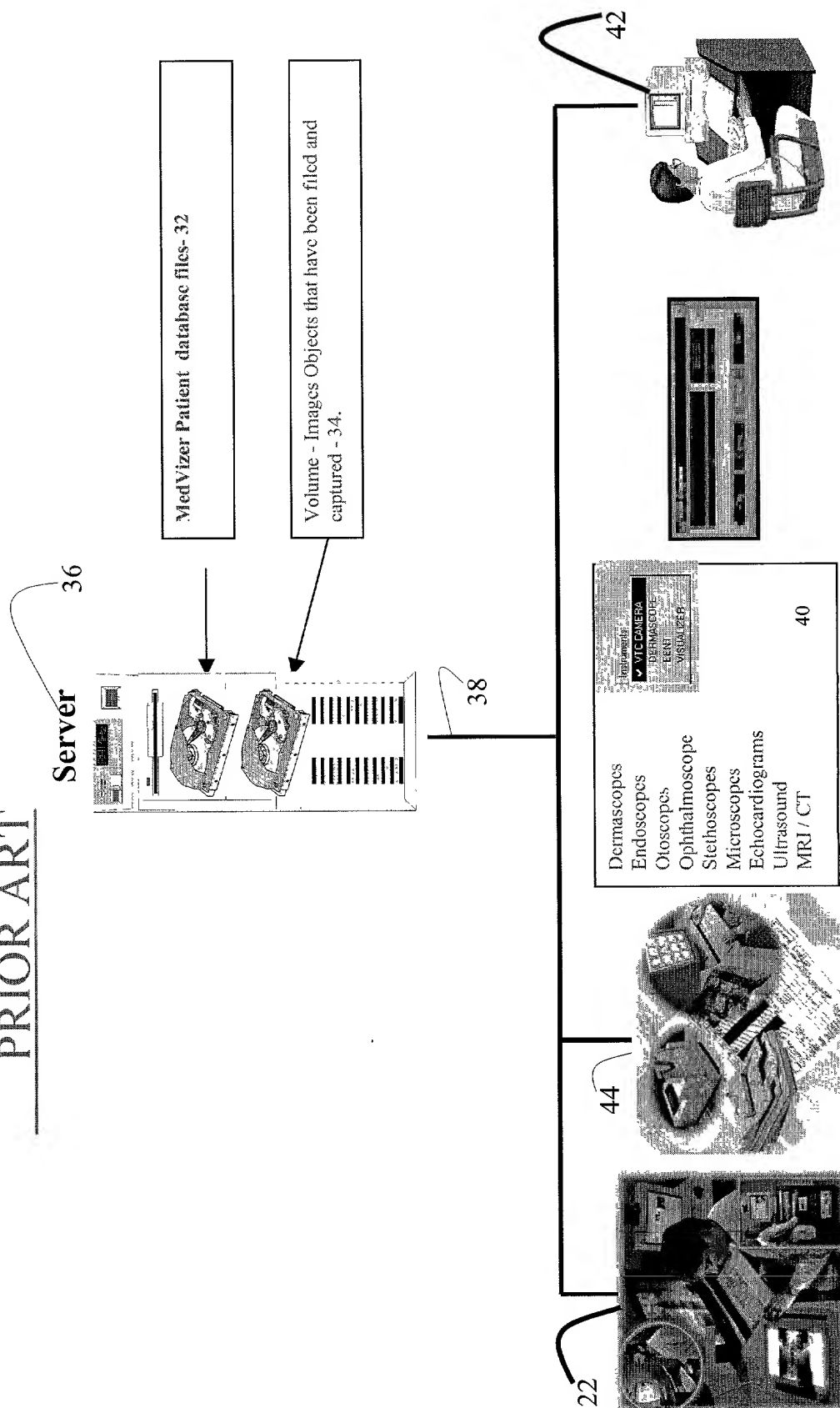


Simple LAN Configuration – FIGURE 2

PRIOR ART



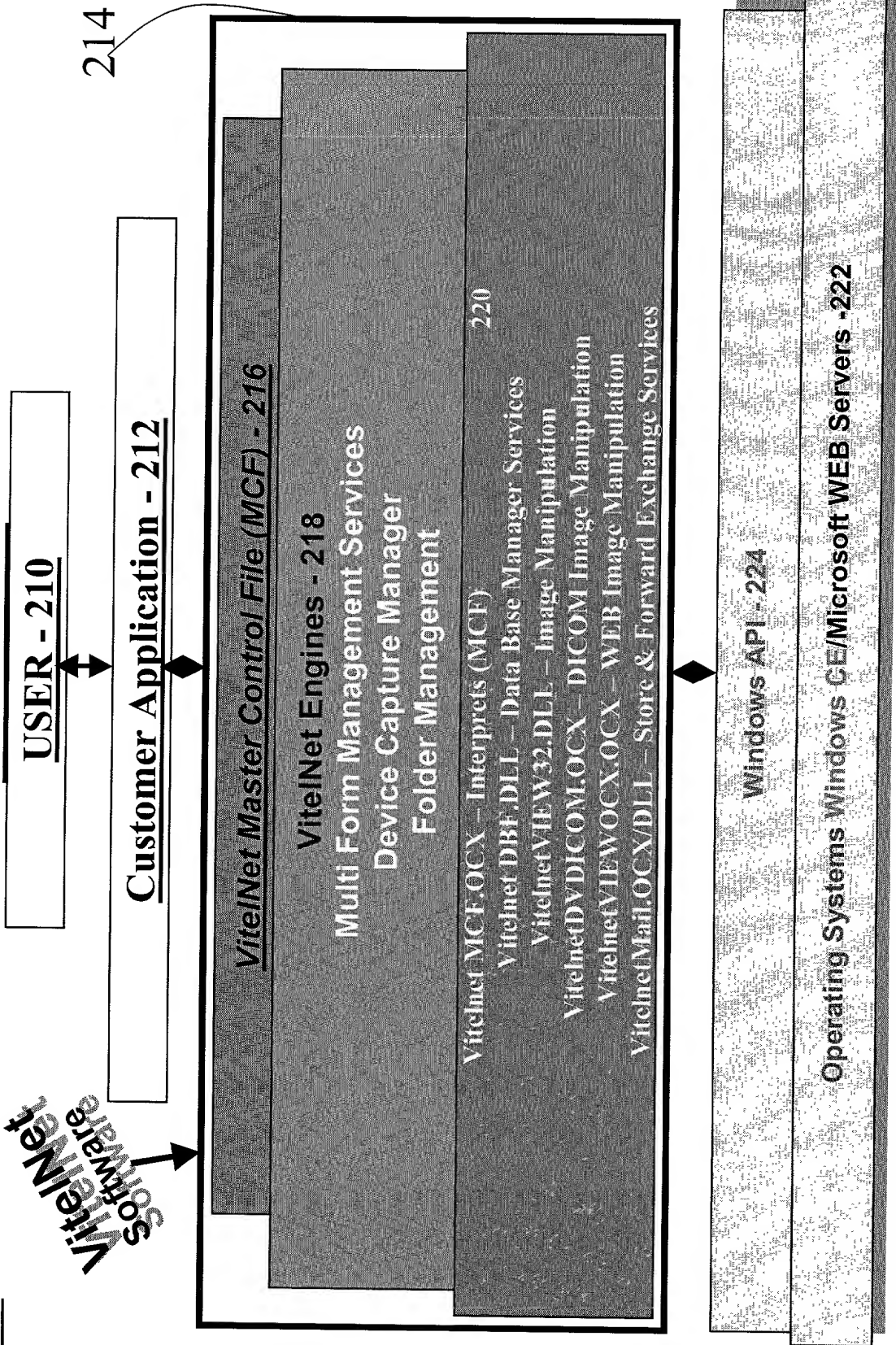
| | | | |
|---------------------------------------|---------------------------|----------------------------|--|
| ViTel Net Application 112 | | | |
| MNU 116 | MCF 114 | Database 118 | |
| Visual Basic – VITEL NET ENGINE - 120 | | | |
| Win32 API-122 | OCX 124 | DLL - 126 | |
| Virtual Memory Manager -130 | File System Manager - 132 | Configuration Manager -128 | |
| Kernel - 136 | | | |
| Device drivers -138 | | | |
| Hardware - 140 | | | |

FIGURE 3 –
PRIOR ART

VitelNet Application Architecture -

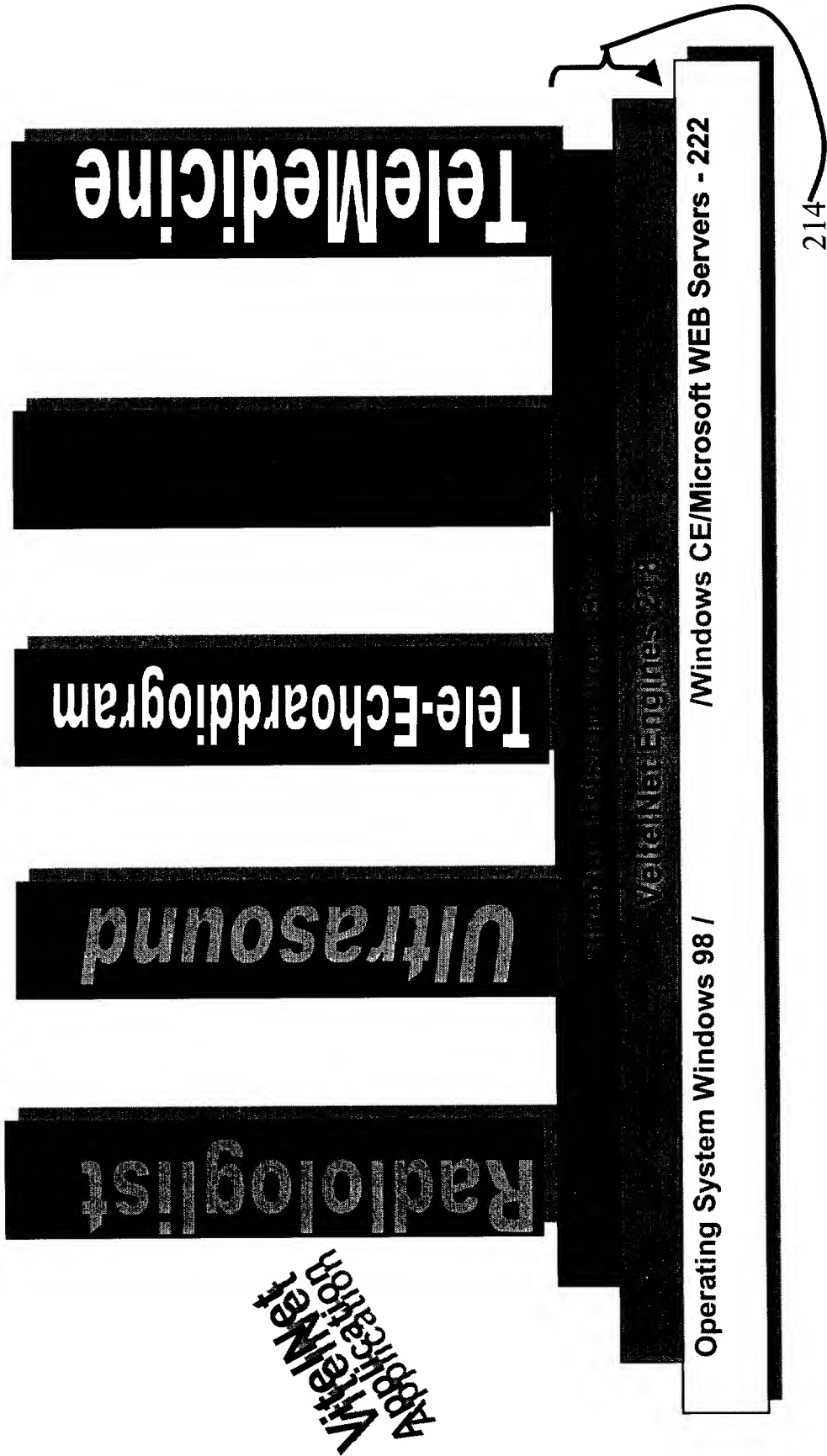
200

FIGURE 4



VitelNet Application Architecture –

FIGURE 5



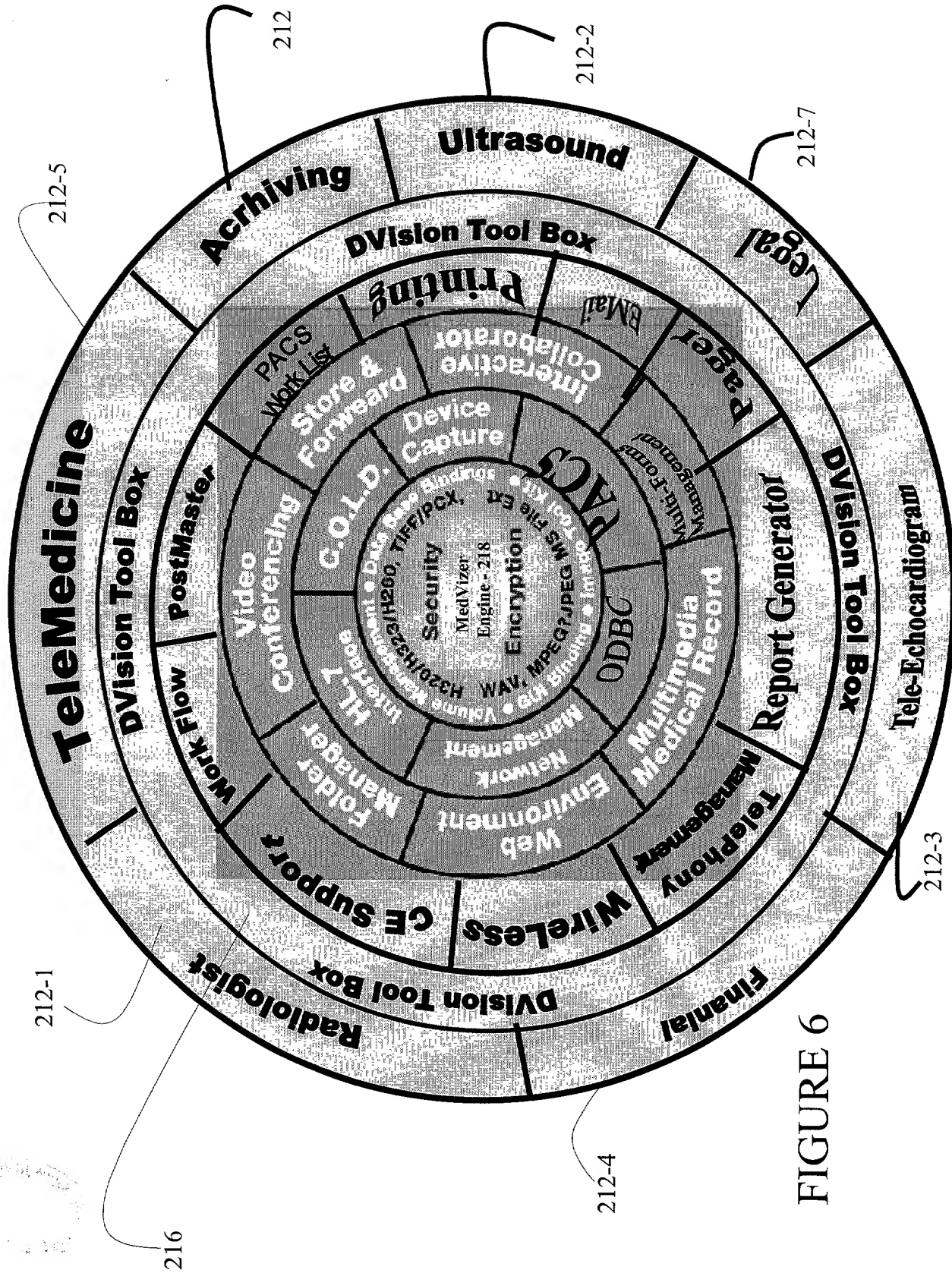
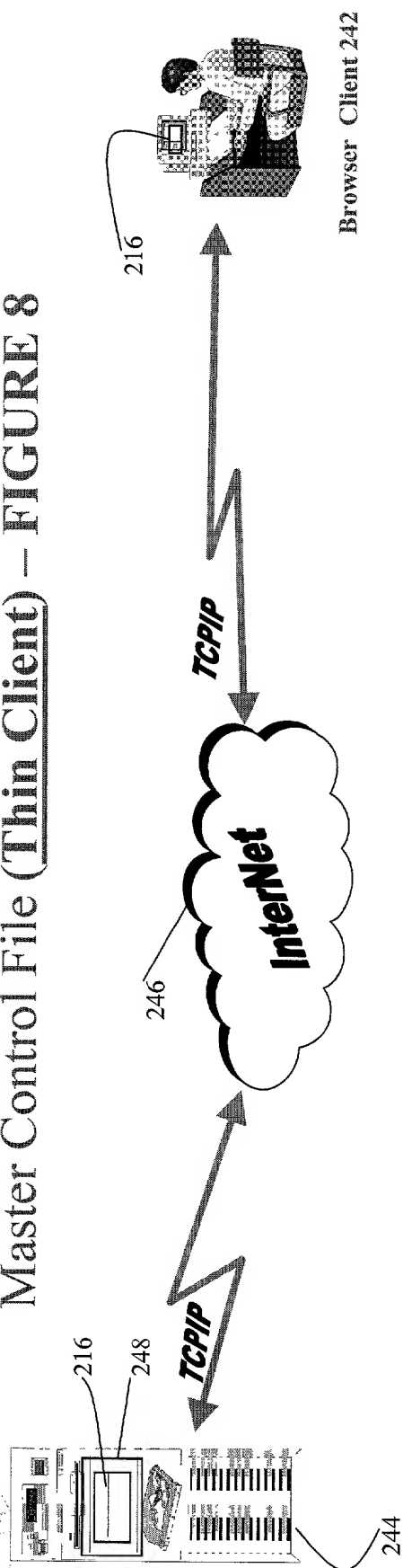


FIGURE 6

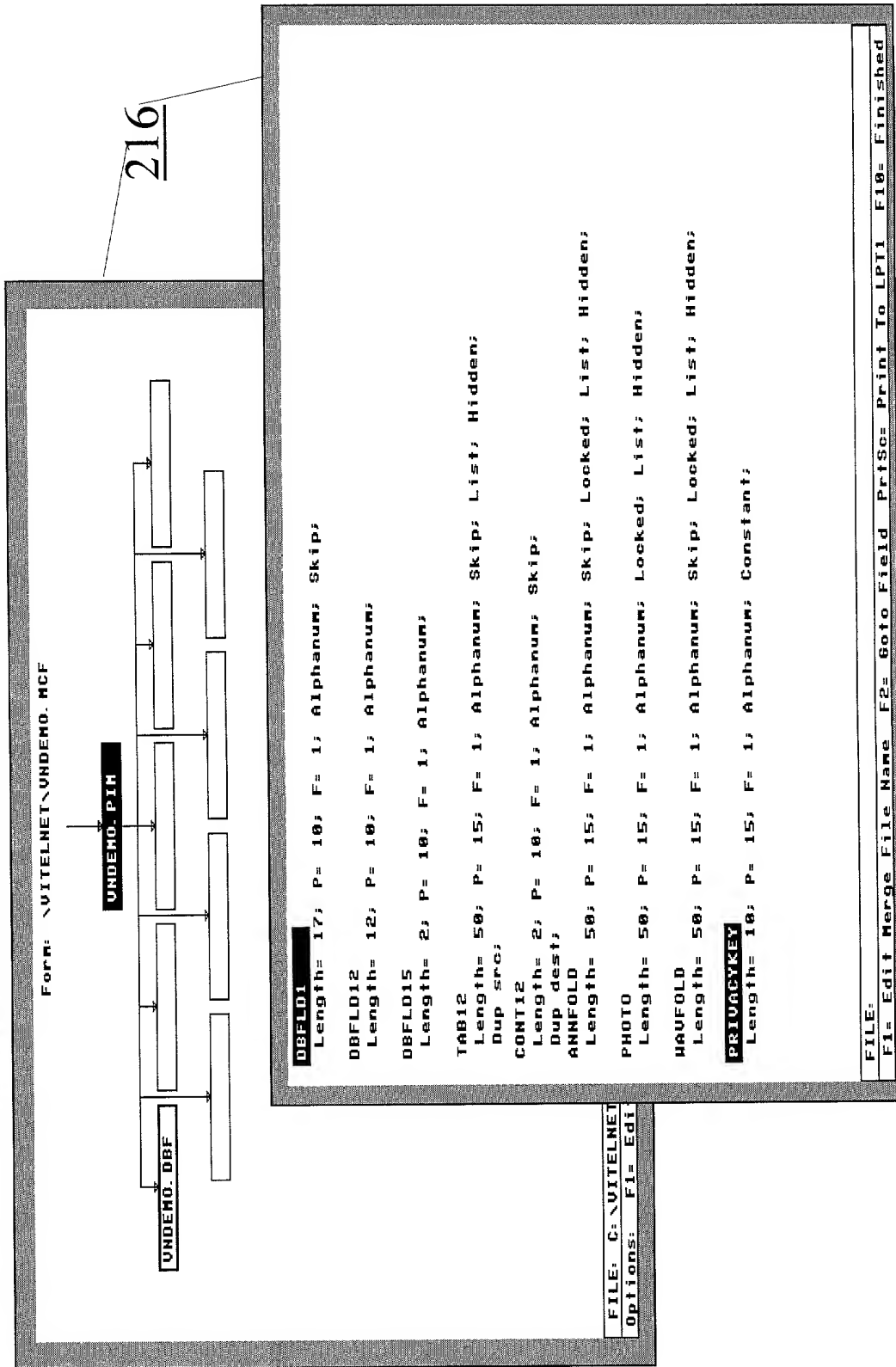
FIGURE 7

| Applications - 212 | | | |
|------------------------------|--|--|---|
| Division Toolbox (MCF) - 216 | | | |
| 230 Utilities | Printing Report Generator | PACS Worklist, Post Master, Email, Telephony Manager, Wireless, Workflow, Printing, Report Generator | Email, Telephony Manager, Wireless, Workflow, Printing, Report Generator |
| | Data Entry | Interactive Collaboration, Video Conferencing, Folder Management, Multiform Management, Multimedia Record, Store-and-Forward, Data Entry | Folder Management, Multiform Management, Multimedia Record, Store-and-Forward, Data Entry |
| 232 Functions | Network Protocol | ADO, C.O.L.D., HL7, ODBC, PACS Communication Protocol, SQL, Device Capture, Network Protocol | Device Capture, Network Protocol |
| | Data Base Binding Image Processing DICOM, 12-Bit Images Security Encryption | Volume Management, Data Base Binding, Image Processing, DICOM (12-Bit Images), Security Encryption | Data Base Binding, Image Processing, DICOM (12-Bit Images), Security Encryption |
| 234 Interfaces | Web Engine 218-2 | WINDOWS 98, 2000, NT ENGINE 218-1 | Pocket PC/WINDOWS CE ENGINE 218-3 |
| | | | |
| 236 | | | |

Master Control File (Thin Client) – FIGURE 8



Master Control File (MCF) – FIGURE 9



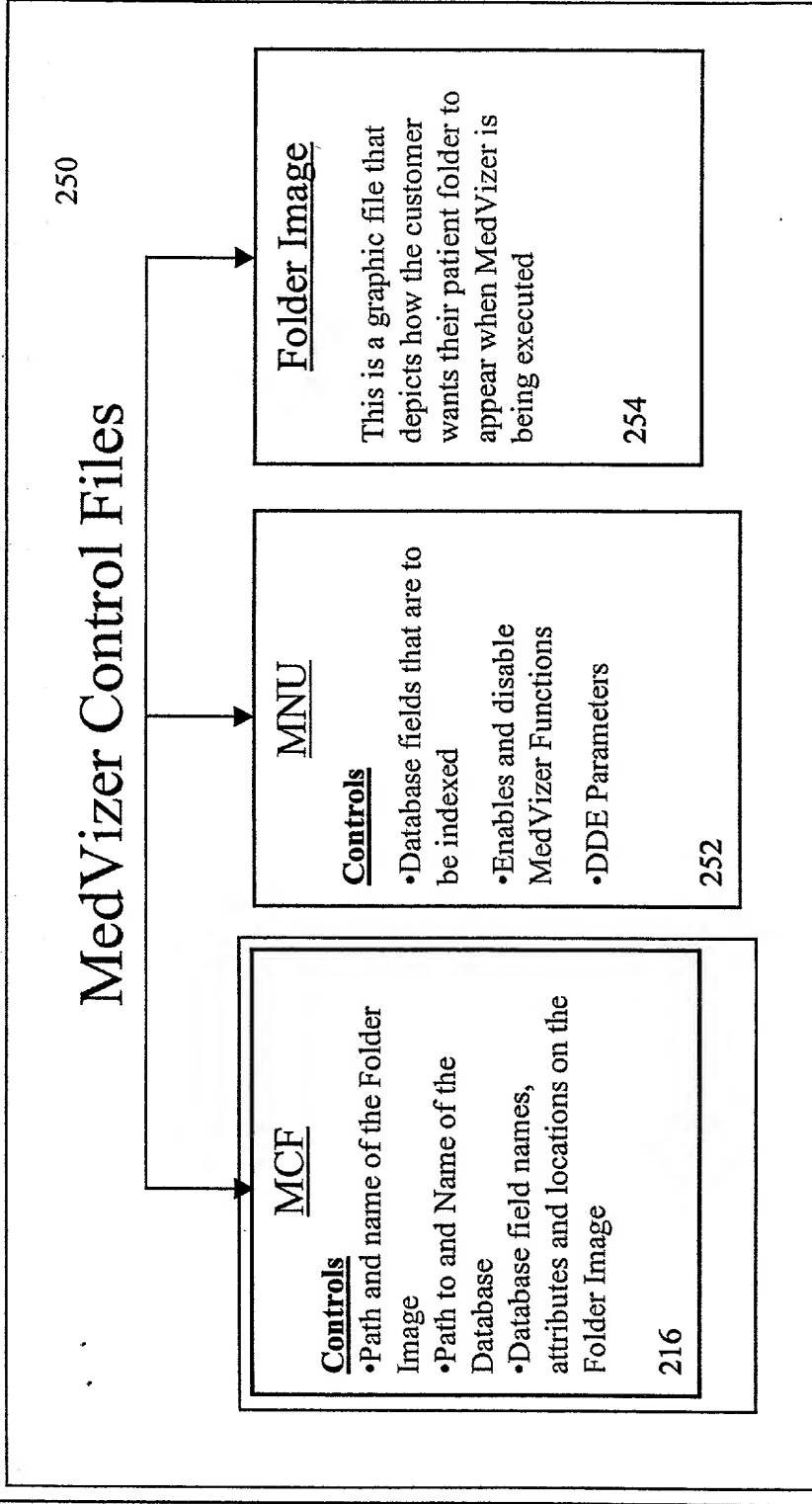


FIGURE 10

Server Side – Master Control File (Thin Client) – Figure 11A

DEFAULT.ASP

260

```

set DvMcf1=server.CreateObject("uDvMcf.DvMcf")
DvMcf1.McfName = "c:\Vitelnet\Vitelnet.mcf"
    '// Submit for the set of records in the db
RecordCount = DvMcf1.Submit(In & Chr(0) & mm & Chr(0) & ssm &
Chr(0))
If DvMcf1.RecordCollection.Count = 0 Then
    '//get the first set of records in db
    RecordCount = DvMcf1.Submit("'" & Chr(0) & "" & Chr(0) & "" & Chr(0))
End If
RecordsList.Clear
RecordsList.AddItem "Select from this list."

```

Client Side – Master Control File (Thin Client) – Figure 11B

PAGE1.ASP

262

```

Sub ViewOcx1_ScrollChange
Dim TmpStr,Ptr

if Tab <> "" then
    TabList.selectedindex = thisForm.ViewOcx1.ScrollIndex
    TmpStr = TabList.getValue(selectedIndex)
Else
    thisForm.ImageList.selectedindex = thisForm.ViewOcx1.ScrollIndex
    TmpStr = thisForm.ImageList.value
end if
"TmpStr = ImageList.getValue(thisForm.ViewOcx1.ScrollIndex)
Ptr = instr (1,TmpStr,")
If Ptr = 0 then
    exit sub
else
    thisForm.ViewOcx1.ShowImage = trim(mid(TmpStr,Ptr+1,len(TmpStr)))
end if
End Sub

```

FIGURE 12

Key <http://Vitelnet/Vitelnet> - 502

Receive VitelnetMCF, Vitelnet.MNU, Vitelnet.DBF,
DVDICOM.OCX, VITELNETVIEWOCX.OCX
C4.DLL, CVIEW32.DLL and DEFAULT PAGE
from the server - 504

Submit search criteria on DEFAULT.ASP page - 506

Receive search list from server side with
DEFAULT.ASP page - 508

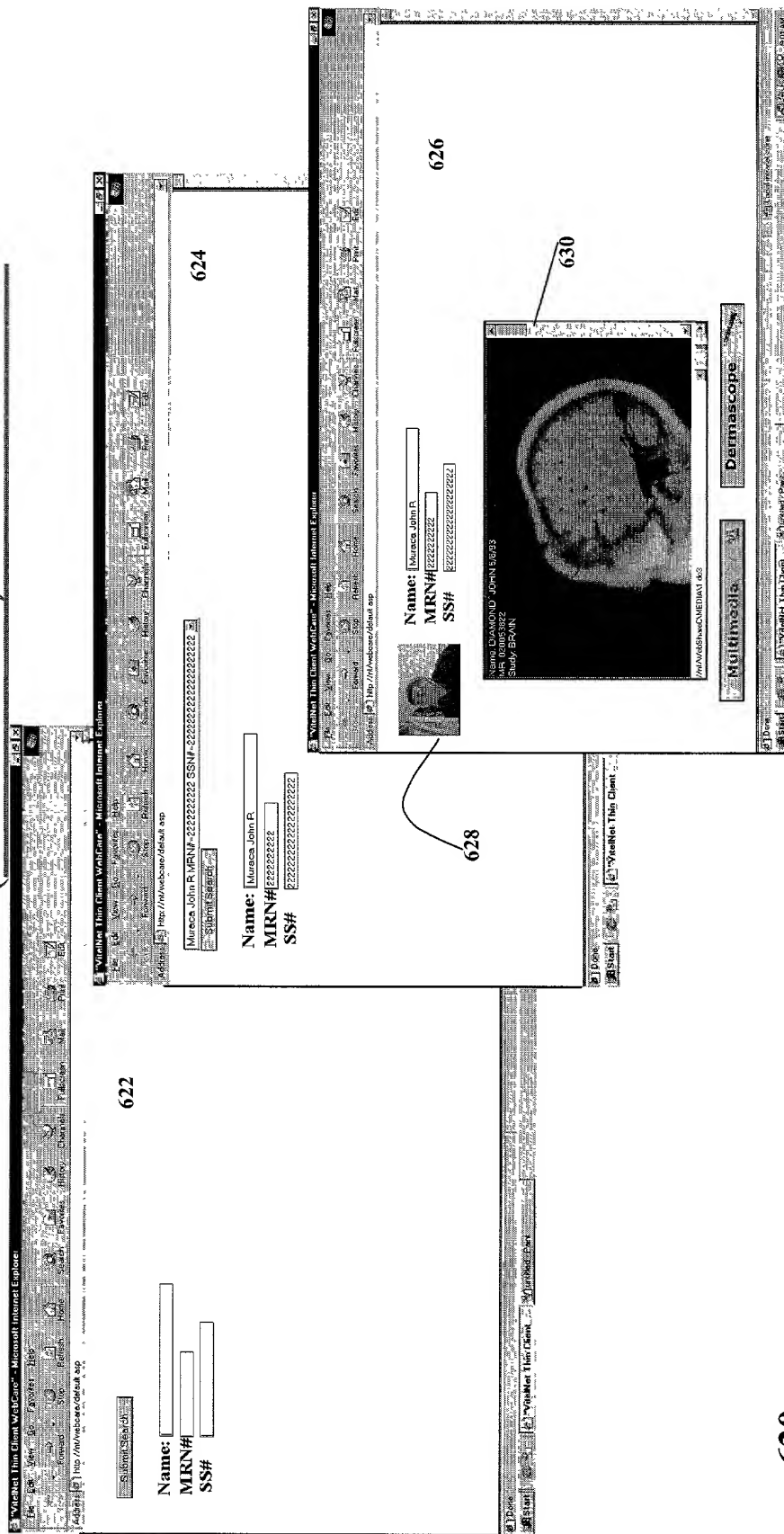
Select Patient from the DEFAULT.ASP PAGE search
results list - 510

Receive PAGE1.ASP page from the server - 512

View Patient folder images from PAGE1.ASP - 514

500

Master Control File (Thin Client) – FIGURE 13



TO220"CODES860

Master Control File (Field Names)

File New Options View

Hospital
Last Name
Second Last Name
Given Name
SSN/Patient ID
Problem
Problem Date
Link Record

Diagnostic
Suggested Lab
Suggested Treat
Drsim
Observation
Consult
Past Hism
Results

Field Name: HOSPITAL
Field Length: 25
Tab Order: 59
Font Size: 8
Border Style: None
Field Use:
☐ Single List
☐ MCF Link
Field Display:
☐ Invisible
☐ Single
☐ Locked
Field Fill:
☐ Constant
☐ Auto Increment
☐ Drop Field
☐ Use Value Field
File Name: C:\medvizer\lookup\HOSPITAL.MT
Caption: Hospital
Only put Code Numbers to Database
Database: C:\medvizer\ADBF5\medvizer.DBF
Delete Field
Cancel

642

List Field Settings by Tab Order

| Number | Field | Length | Settings |
|--------|------------|--------|--------------------------------|
| 59 | HOSPITAL | 25 | Alphanumeric |
| 60 | LASTNAME | 30 | Alphanumeric |
| 61 | MNAME | 30 | Alphanumeric |
| 62 | PRENAME | 15 | Alphanumeric |
| 63 | PATIENTID | 18 | Alphanumeric |
| 64 | PROBLEM | 10 | NumberOnly Date Skipped Locked |
| 65 | CREATE | 10 | NumberOnly Date |
| 66 | LOCKDATE | 10 | NumberOnly Date |
| 67 | AGEENDIS | 256 | Alphanumeric |
| 68 | LABTESTS | 256 | Alphanumeric |
| 69 | TREATMENT | 256 | Alphanumeric |
| 70 | DESBINATIO | 100 | Alphanumeric |

Print List
Close

640

File Edit Search Options View Help

File Name: C:\medvizer\lookup\HOSPITAL.MT
Caption: Hospital
Only put Code Numbers to Database
Database: C:\medvizer\ADBF5\medvizer.DBF
Delete Field
Cancel

Field Name: HOSPITAL
Field Length: 25
Tab Order: 59
Font Size: 8
Border Style: None
Field Use:
☐ Single List
☐ MCF Link
Field Display:
☐ Invisible
☐ Single
☐ Locked
Field Fill:
☐ Constant
☐ Auto Increment
☐ Drop Field
☐ Use Value Field
File Name: C:\medvizer\lookup\HOSPITAL.MT
Caption: Hospital
Only put Code Numbers to Database
Database: C:\medvizer\ADBF5\medvizer.DBF
Delete Field
Cancel

FIGURE 14

80

FIGURE 15

Pointer to and Name of the Database - This is database that the MedVizer application will populate and retrieve information from.

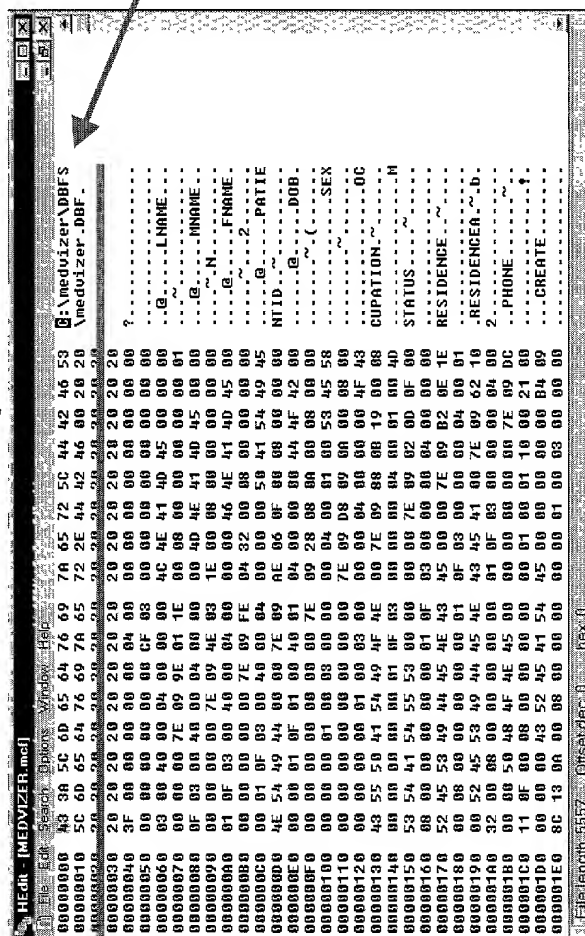
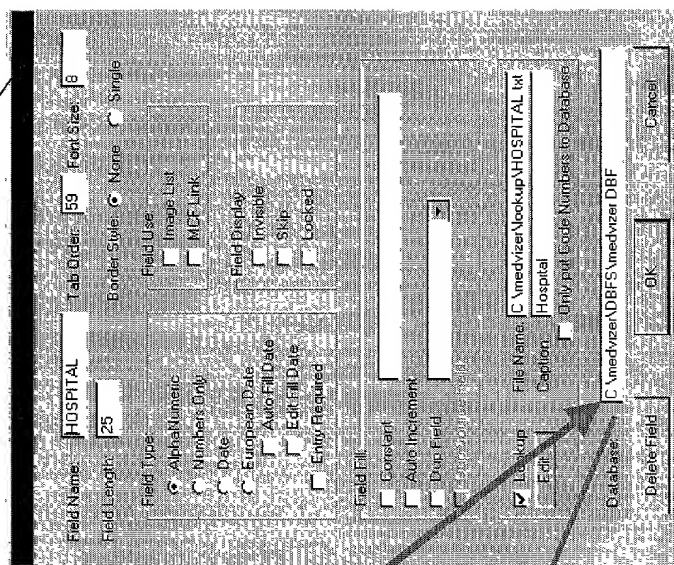
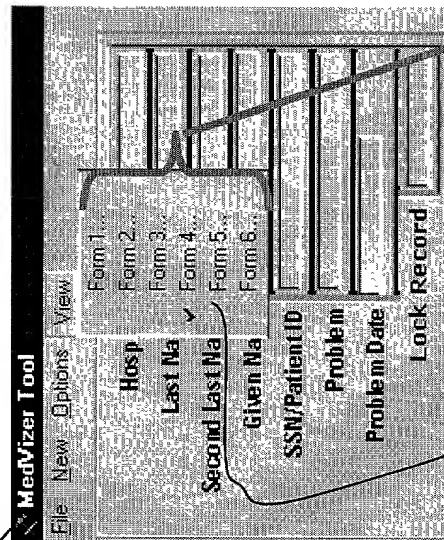
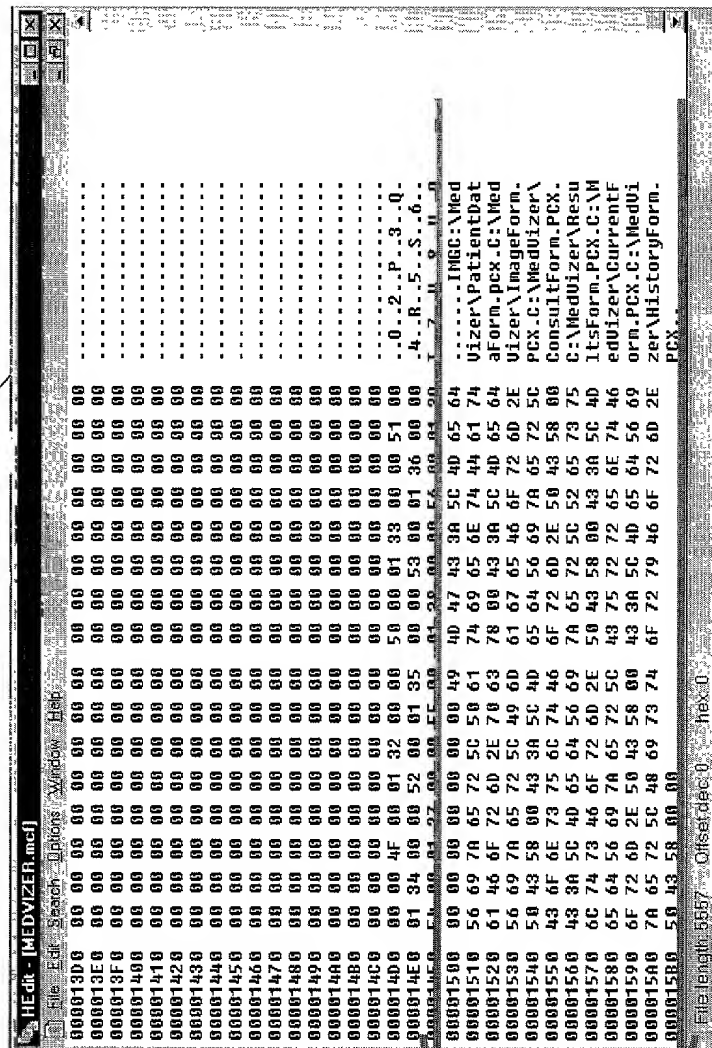


FIGURE 16

Pointer to and Name of Graphic Image(s) - This is the image(s) that displays when the MedVizer application is executed.



648



642

Database Field Location - This is the top X Y coordinates that define the location that the database field will be displayed on the Graphic image when the MedVizer application is executed.

Database field attributes (Field Length, Alpha/Num, Numeric Only)

Auto fill when database record is created.

Auto fill when database record is modified.

Fill from keyboard.

Image List – Stores list of archived documents maintained and displayed from this field

MCF Link – Points to another MCF

Invisible - Field data is not displayed

Constant -Data is auto entered with a constant

Skip – Prevents from anchoring cursor on field.

Required - Data must be entered into this field

Lock – Prevents user from entering/changing field content.

Font - Defines font selection for this field

Tab Order – Sets the tabbing order when Tab key is pressed.

[illegible]

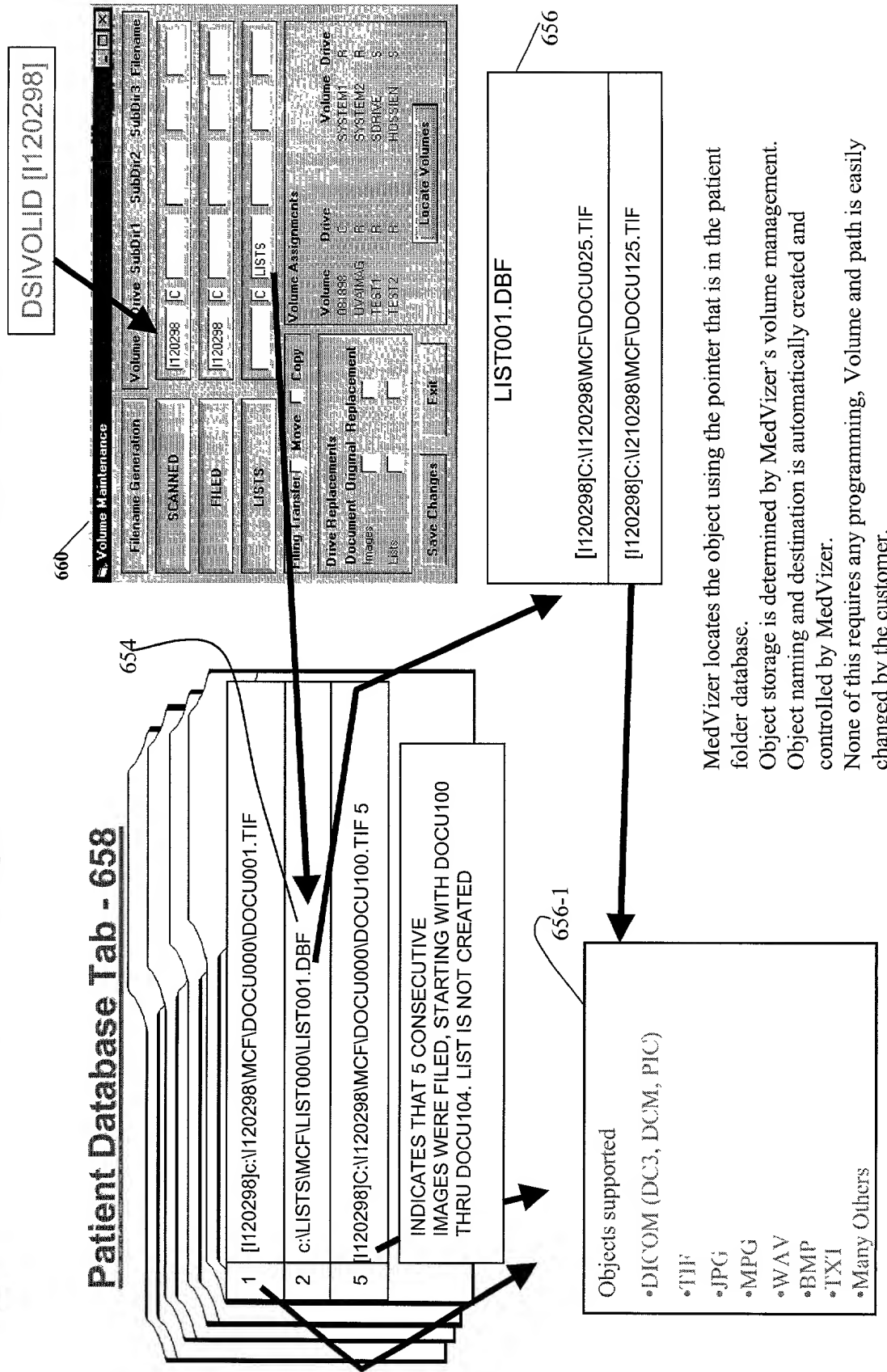
216

640

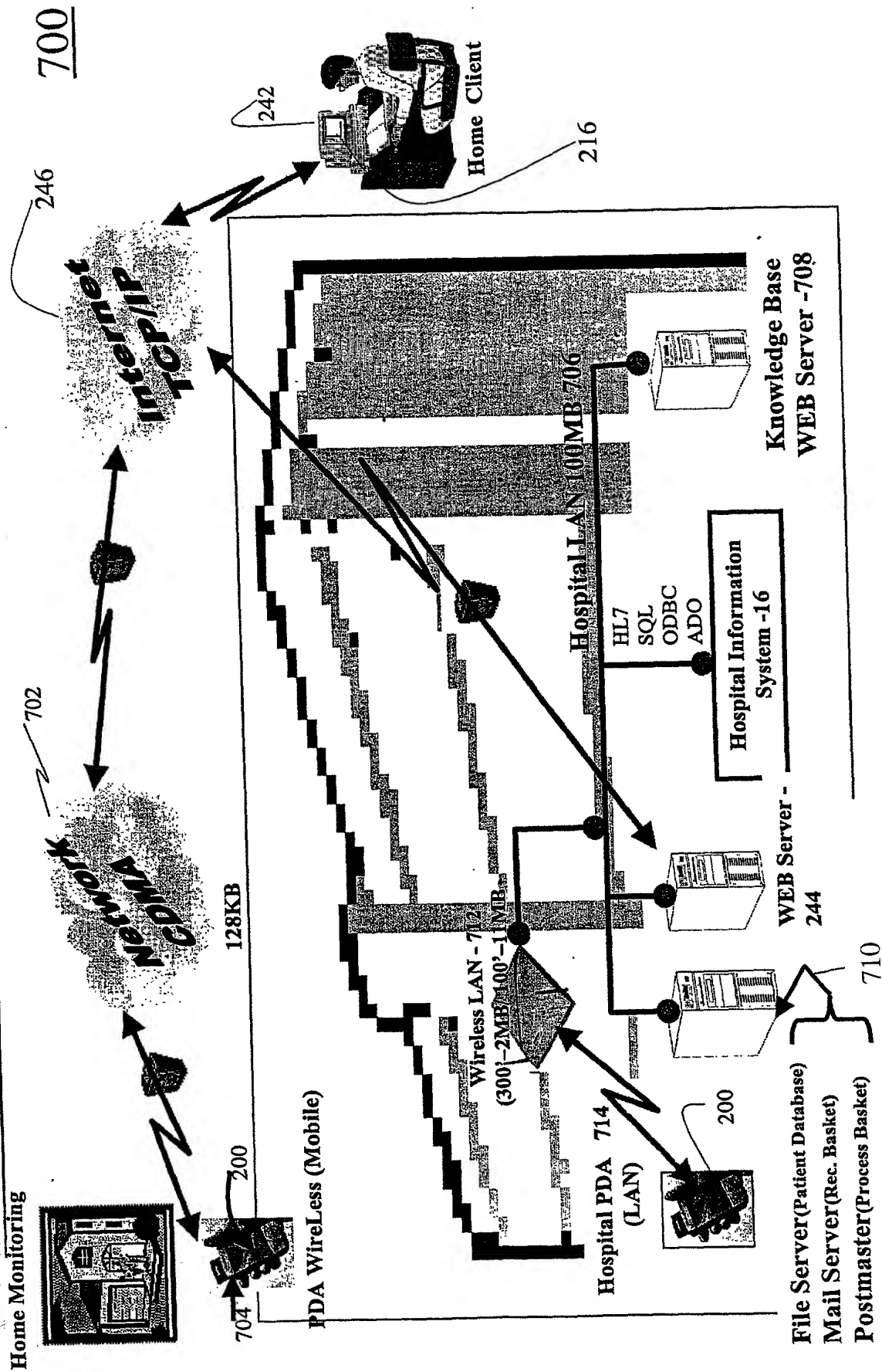
FIGURE 18

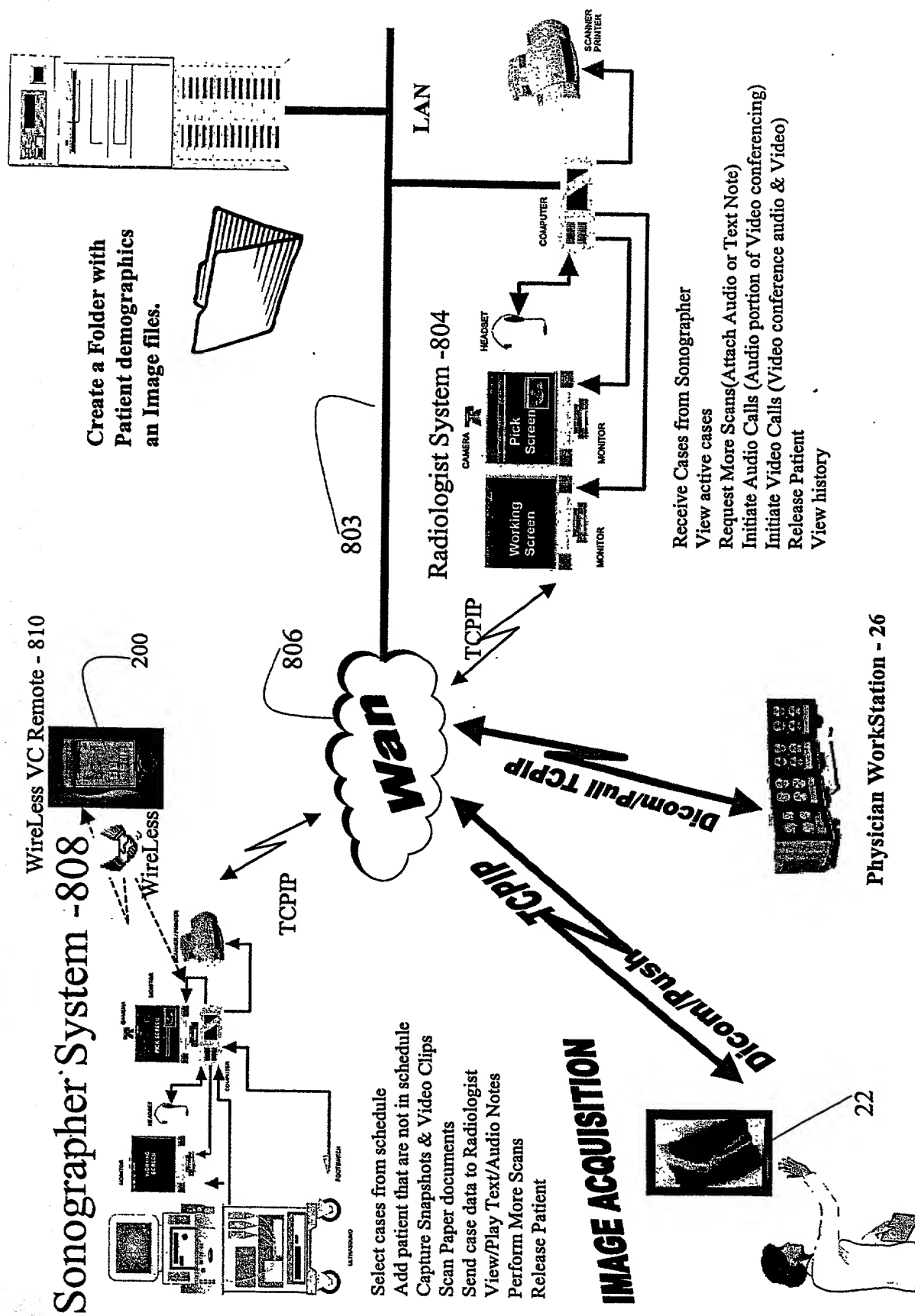


MedVizer Object Storage/Retrieval – FIGURE 19

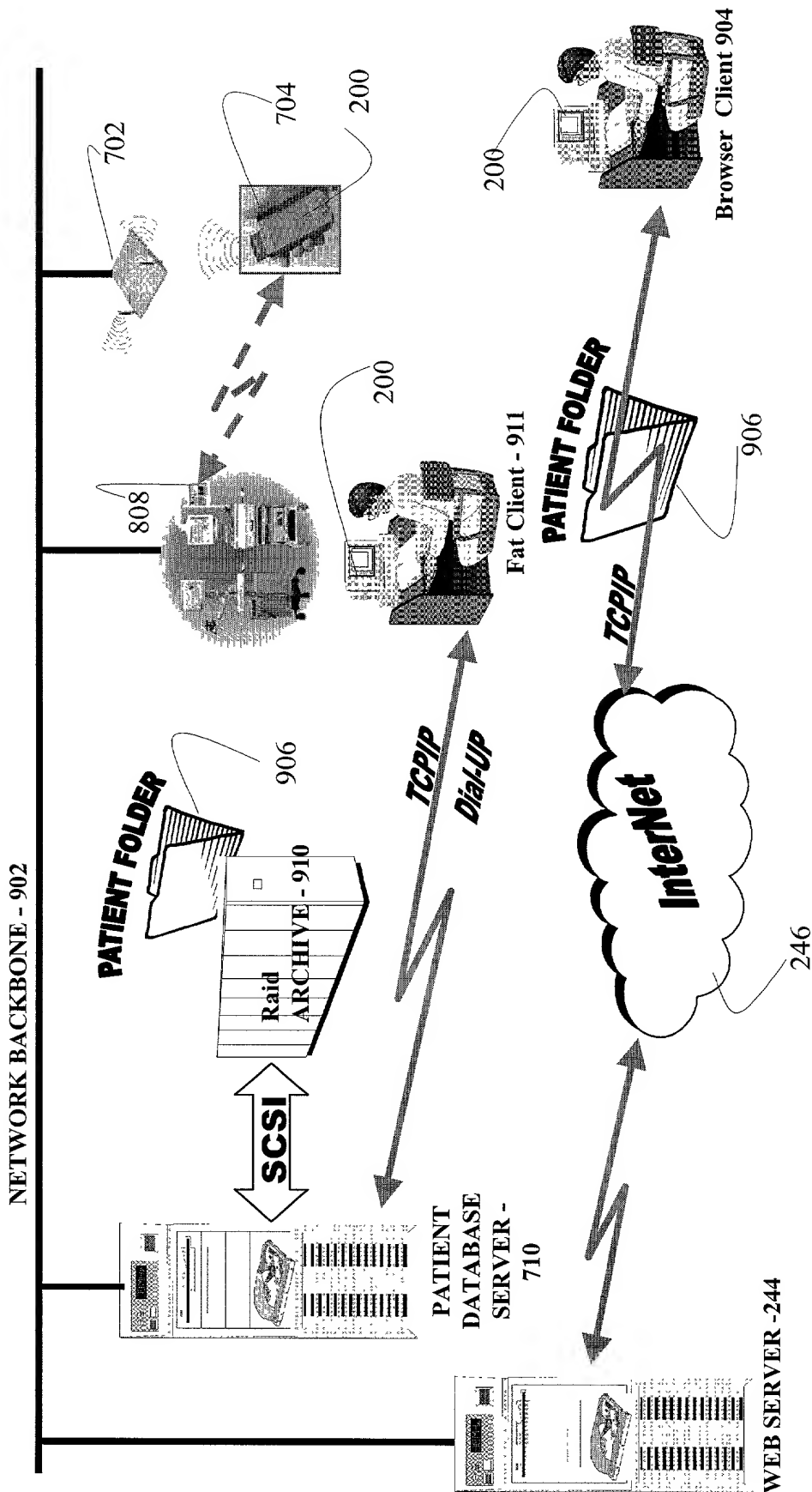


Secure Wireless Telemedicine Enterprise System – Figure 20



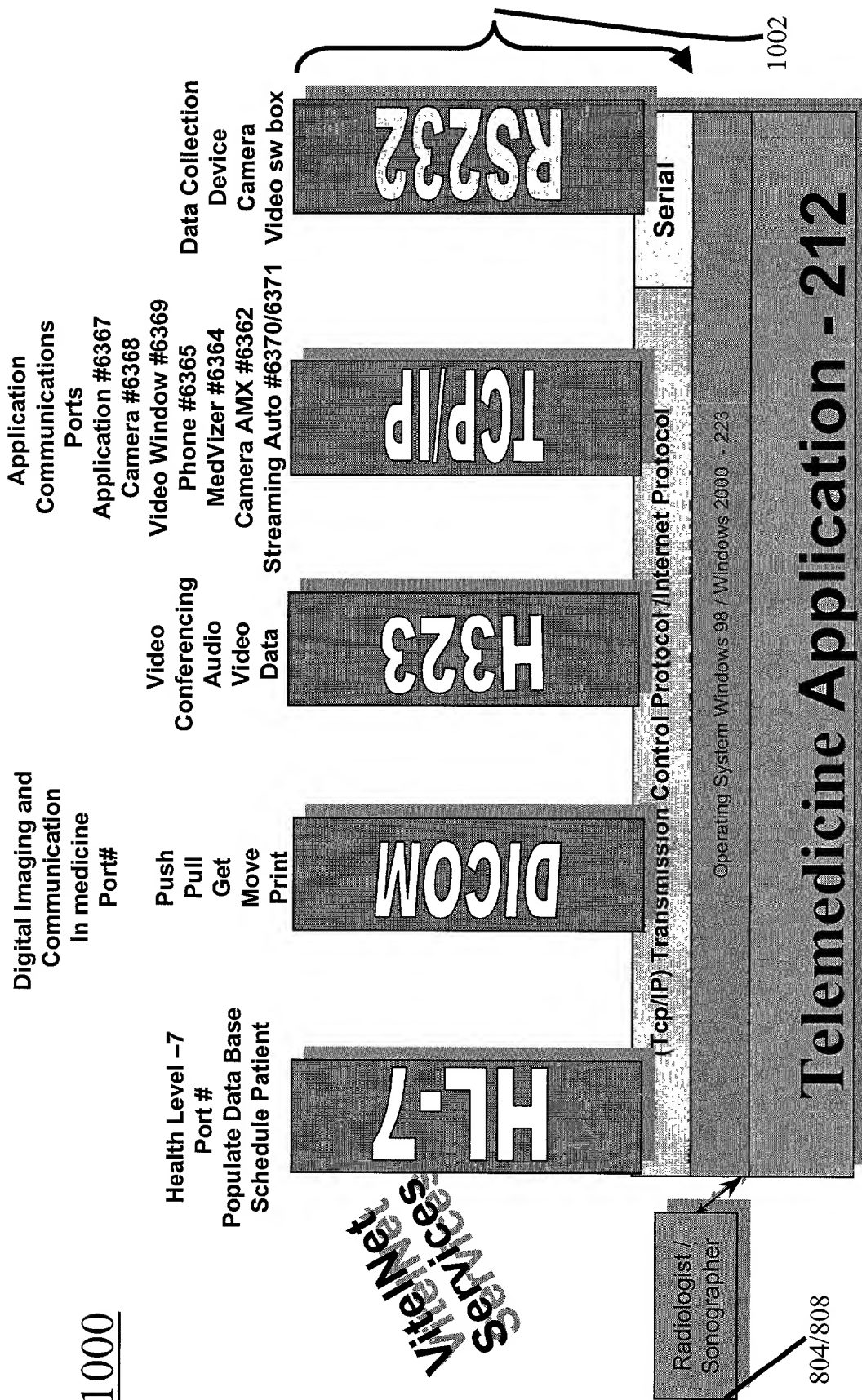


ViTel Net Telemedicine System - FIGURE 22



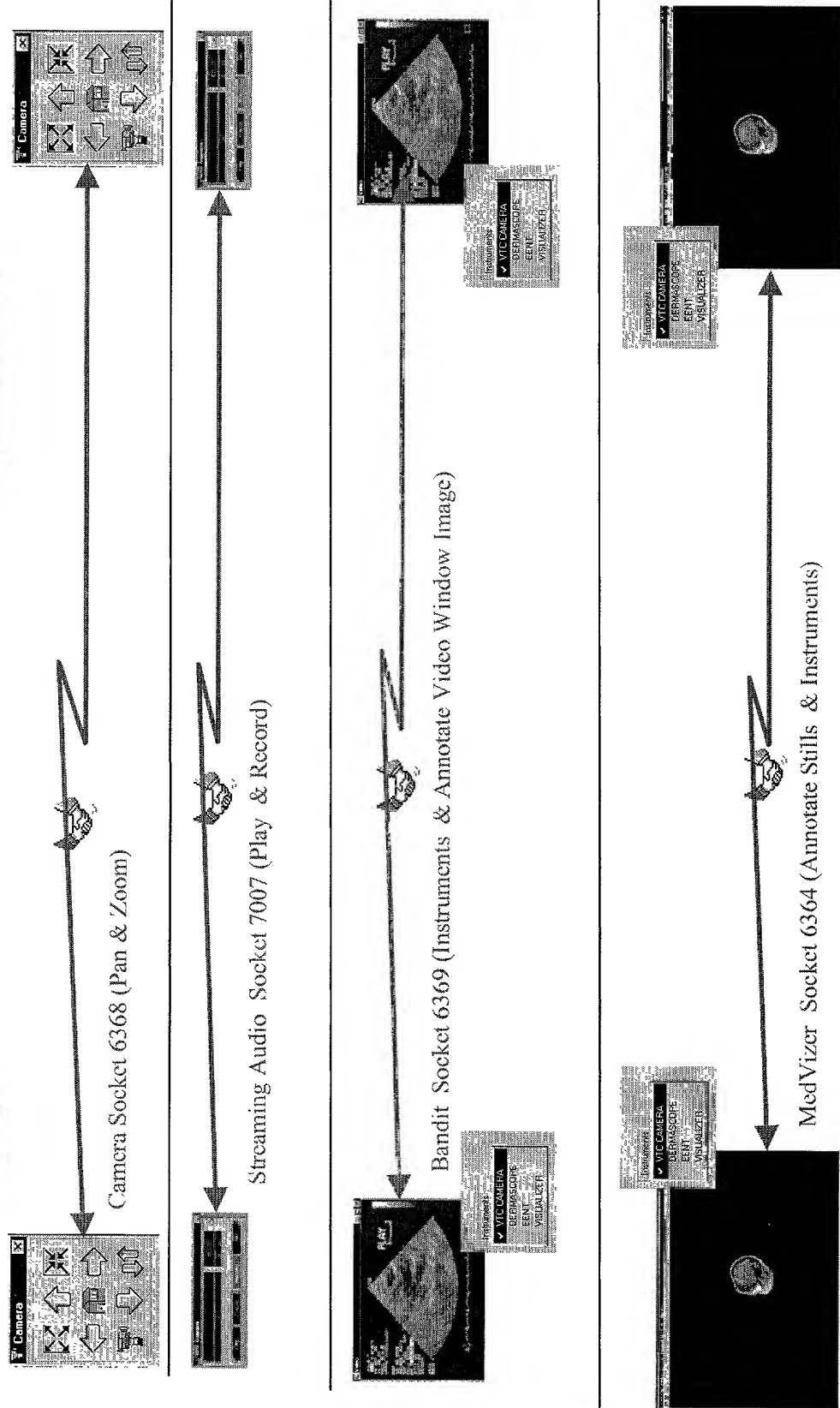
VitelNet Communications Architecture

- FIGURE 23



Remote TCP/IP Functions – FIGURE 25

1200



VNET/MedVizer Software – FIGURE 26

1210

ViTelNet

C:\VN\VNET.EXE
C:\VN\Controls.exe

MedVizer

C:\DV\Dv.exe
C:\VITELNET\VNDEMO.MCF
C:\VITELNET\VNDEMO.MNU
C:\VITELNET\BMPS\VNDEMO.INI

Video Capture

C:\BANDIT\Bandit.EXE
C:\BANDIT\Bandit.ini
C:\BANDIT\Phone.exe
C:\BANDIT\Phone.ini
C:\BANDIT\Phonebk.ph
C:\BANDIT\Remote.exe
C:\BANDIT\Vitelcon.exe

VNET/MedVizer INI File – FIGURE 27A

| | |
|--|--|
| [Medvizer] Caption=VitelINK lang= | Caption that appears in the VNET title bar lang=eng Specifies english language is to be used lang=spa Specifies Spanish language is to be used |
| phpath="c:\bandit\PHONE.EXE @PhoneBook;c:\bandit\joe.ph; \VCON" | Used by VNET to determine the location and command line associated with the phone book. |
| phtopic=Phone\Book | Used by VNET to determine the phone DDE topic |
| dvpath=c:\dv\dv.exe c:\VITELNET\VNDEMO.mcf /hide | Use by VNET to determine the location and command line associated with DV |
| dvtopic=DV\Division | Used by VNET to determine the DV DDE topic and is used in the DDE initialization process. This is also used during the DDE conversations between applications. |
| LinkItem=Dvision | Used by VNET as part of the DDE initialization. This is also used during the DDE conversations between applications. |
| bandit=yes | Flag used to load bandit. Placing a ' at the beginning of this command disables loading of bandit |
| bdpath=c:\bandit\bandit.exe /HIDE /debug /enabledde /W /dv /optibase | Used by VNET to determine the location and command line associated with BANDIT. Command line parameters include; |
| | /HIDE - loads the application and hides it. |
| | /debug - turns debug on |
| | /enabledde - enables bandit to conduct dde conversations. This must be part of the command line when using the socket /W parameter. |
| | /W - enable sockets |
| | /Optibase enables MPEG encoding from the bandit window. |
| bdtopic=bandit\bandit | Used by VNET to determine the BANDIT DDE topic and is used in the DDE initialization process. This is also used during the DDE conversations between applications. |

VNET/MedVizer INI File- FIGURE 27B

1300

;Control panel for amx

ctpath=c:\vn\controls.exe /c1 /hide /w

cttopic=controls\controls

exit!=yes

remdrive=v:

remcom=2

[Menu]

Show=NO

AOtop=NO

[ports]

@Udp=6366

@Net=6367

@Cam=6368

@Ban=6369

@Phn=6365

@Dvp=6364

@Hcp=6363

@Ctl=6362

@Spc=6370

@Sps=6371

Used by VNET to determine the location and command line associated with BANDIT.

Used by VNET to determine the Controls DDE topic and is used in the DDE initialization process. This is also used during the DDE conversations between applications

When set to yes the video conferencing software will exit without prompting the operator. When this command is disabled a prompt will be presented to the operator prior to exiting.

This is the drive letter that will be assigned and mapped when connecting to a remote system.

This is the com port assigned to the camera or the AMX controller is connected to.

Controls the displaying of the VNET button bar. When this command is disabled the menu bar will display. When enabled and No follows the equal sign the menu bar will not be displayed. Always On Top - is used to specify if the button bar is always on top are if another form can be displayed over it. When this command is disabled the button bar will always be on top. When enabled the button bar can be covered by another form.

Broadcast Socket

VNET to VNET Socket

Camera Socket

Bandit Socket

Phone Socket

MedVizer Socket

Health Socket

Camera Controls AMX

Streaming Player Client

Streaming Player Server

MedVizer MNU File - FIGURE 28A

WINDOW HEADING Definition - Enter heading to display at top of window.

! VITel Net DEMO

COLUMN HEADING Definition - Enter heading to display over search fields.

!Sequence No Patient ID SS#

PROMPT LINE Definition - Enter prompt message for user to act on.

!Enter Search Information

FIELD NAME Definitions - Enter Field definitions as follows:

Name,Position,Length,I - "I"=Indexed field (optional)

@DBFLD11,1,28,I

@DBFLD21,18,25,I

@DBFLD20,44,11,I

The following specifies the drive letter that basket will be transferred to.

[NIWOT]

_NIWOTCOPY_V_DV_DV_

The following commands enable MedVizer functions and
ICONS

EXIT

LOCATE

NEXTREC

PREVREC

FIND

ASK

ADDREC

PickDocument

FILEDocument

CloseOnExit

VideoConferencing

RECORDWAVE

Scan

TwainDevice

MainStrRec

Main View

VolGen

SavePostion

volgen

savepostion

MedVizer MNU File- FIGURE 28B

252

Location and size of the MedVizer Patient Folder

Top_ 690_
Left_ 4200_
Height_ 10830_
Width_ 9960_

The following specifies the tab that a specific file is capture to.

.TIF_Tab1_
.WAV_TAB5_
.JPG_Tab2_
.AVI_Tab4_
.ASF_Tab3_

The following turns the list thumbnails on and specifies the size of the thumbnail.

[ThumbNail]
Enable=YES
THUMBNAIL_32_24_

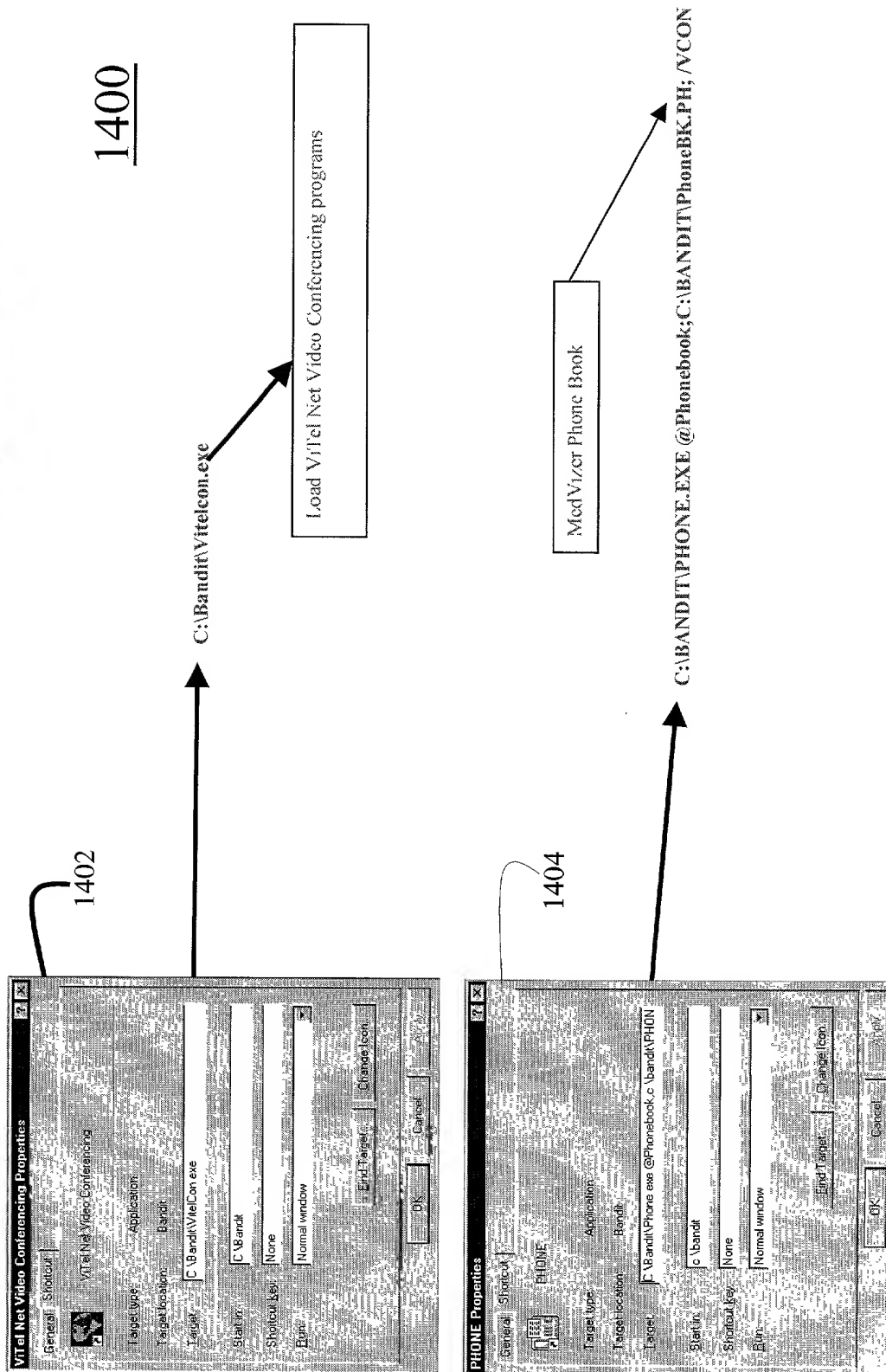
The following lines are related to MedVizer's Volume management

DOC_R_VNDEMO__AUTO__
LST_R_VNDEMO__AUTO__
PTH_
PTH_
PTH_
CPY_R_VNDEMO__AUTO__

[

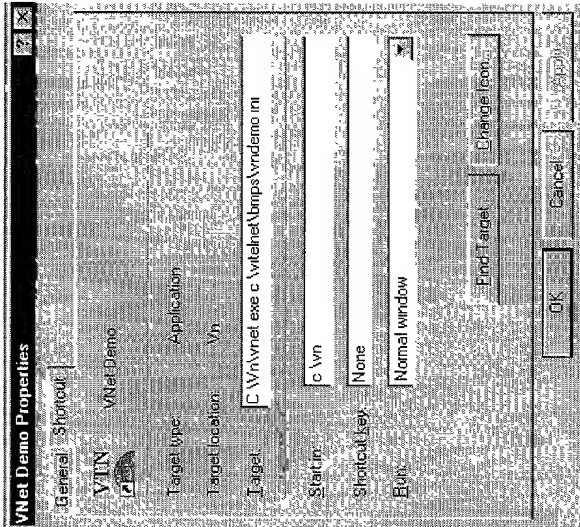
TOOL]
XRAY=ACCUSOFT
NUMXRAYS=9
THUMBWIDTH=80
THUMBHEIGHT=100
THUMBBCOUNT=6
THUMBSPACE=20
THUMBFRAME=15
THUMBROWS=2
TOOLBARS=SMALL
AUTOVIEWRATE=10
MAGSMALL=100
MAGMEDIUM=200
MAGLARGE=300
MAGMAG=2
MENUHEIGHT=16
MENUFONT=8
SCANDPI=75
SCANBITS=8
SCANOPT1=75
SCANOPT2=150
XRAYBCOLOR=00000000
SHOW=YES
DATABASE=R:\VITELNET\VNDEMO.dbf

System Start Up Group – FIGURE 29



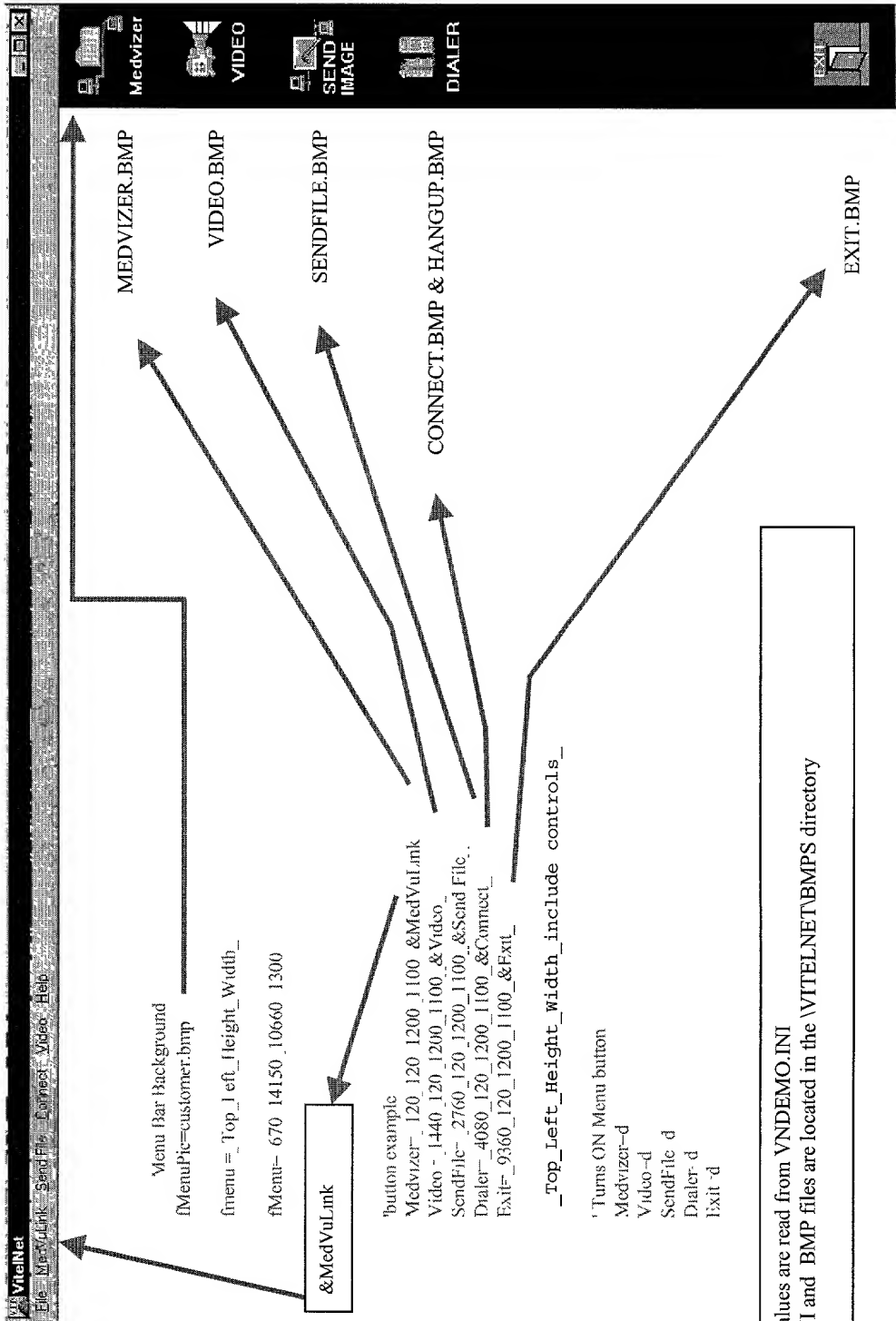
VNET Properties – FIGURE 30

1500



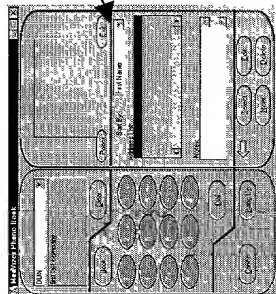
- Initializes the system based on information acquired from the VNDEMO.INI file.
- Configures the Desk Top
 - Creates Menu Bar
 - Size and location
 - Buttons (BMP files located in \VitelNet\BMPs directory
- Establishes MedVizer Window size and location
- Loads MedVizer (DV.exe)
- Loads Bandit.exe
- Establishes DDE links
- Controls program interaction

VNET Desktop – FIGURE 31



MedVizer Phone Book- FIGURE 32

1700



Exit - unloads the MedVizer Phone book

These entries will appear in the address list

Email and Pager address (place email address in the pager box for those individuals that do not have a pager address)

Name of the Dial-Up Networking ICON that is used to place the call

IP address of the system being called

Hospital-1 \Hospital-1 \Hospital-2
 computer name being called
 \share drive name
 \Your share drive name

Default Logical Name - This can be left blank if the computer name and share drive name are the same and it appears in the First Name text box.

 The main application window titled "MedVizer Phone Book". It contains several input fields and buttons.
 - Top left: "First Name", "Last Name", "Country", "Title", "Notes" fields.
 - Top right: "Phone", "Fax", "Email", "Pager" fields.
 - Middle: "DUN Address" (with a dropdown menu), "Network Address", "Logical Name" fields.
 - Bottom: "Dial" button, "Hang Up" button, "Speed" button.
 - Right side: "No. of ISDN channels" (dropdown), "Access Method" (dropdown), "Dial" button, "Cancel" button.
 - Bottom right: "Dial on Board" button.
 Arrows from the surrounding text boxes point to specific fields in this window.

Volume Information & Generation – FIGURE 33

1800

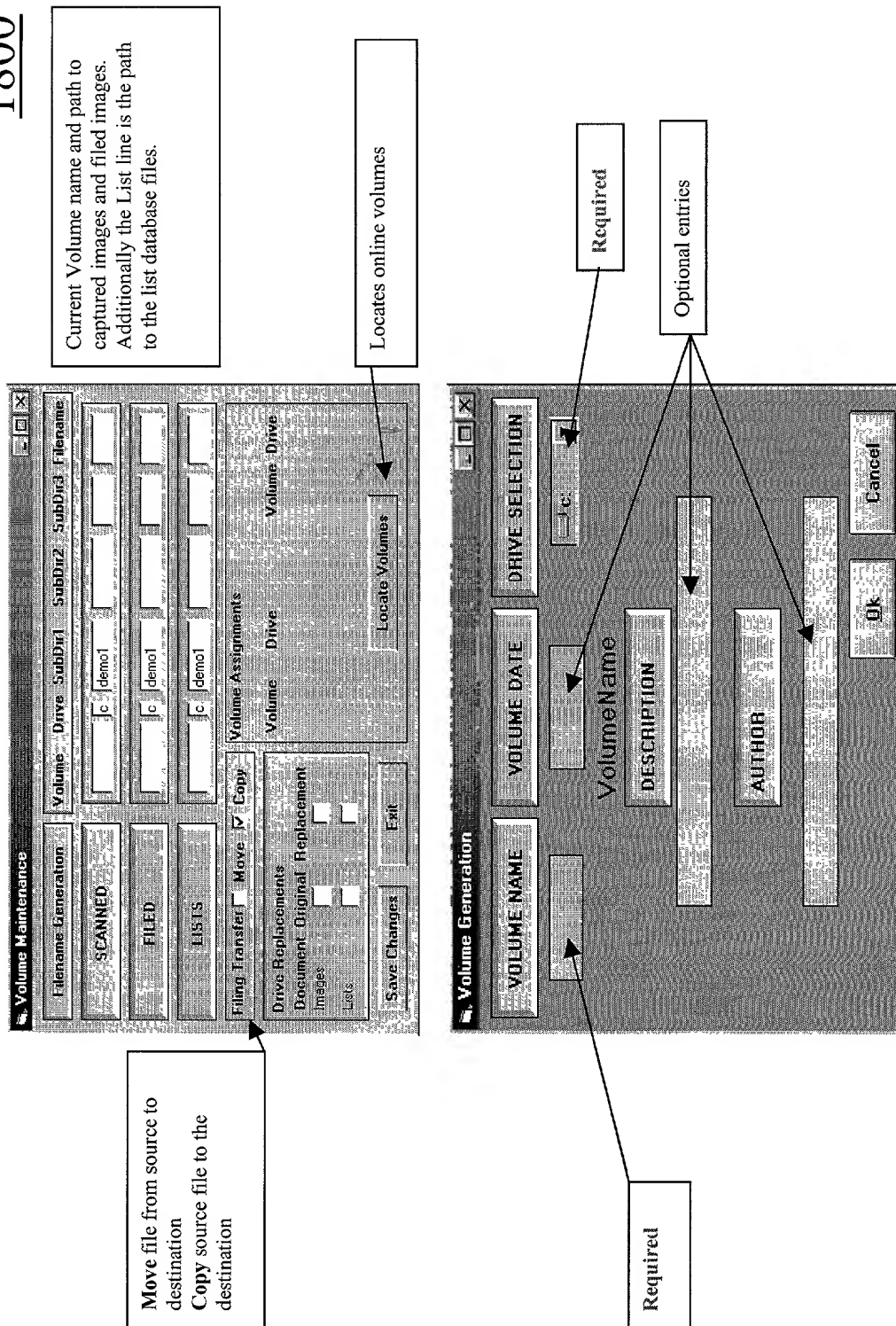


FIGURE 34A

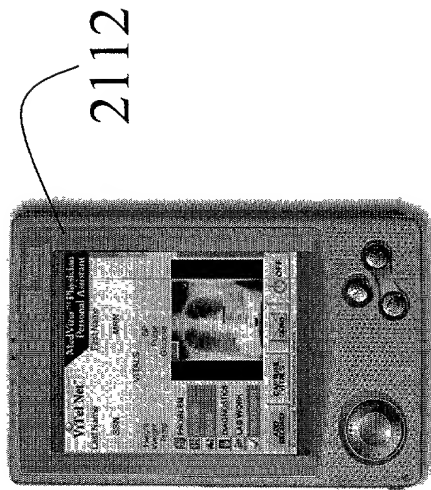


FIGURE 34B

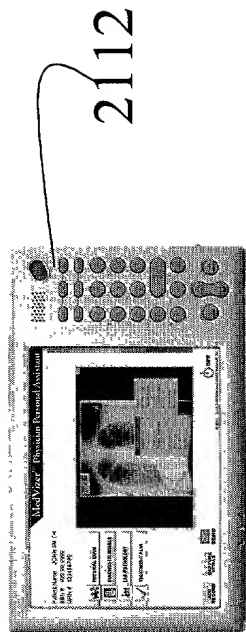
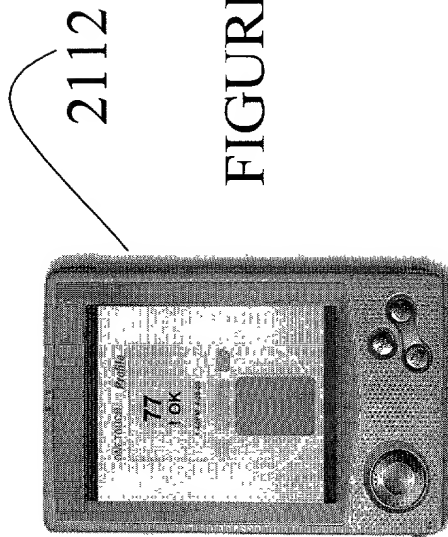
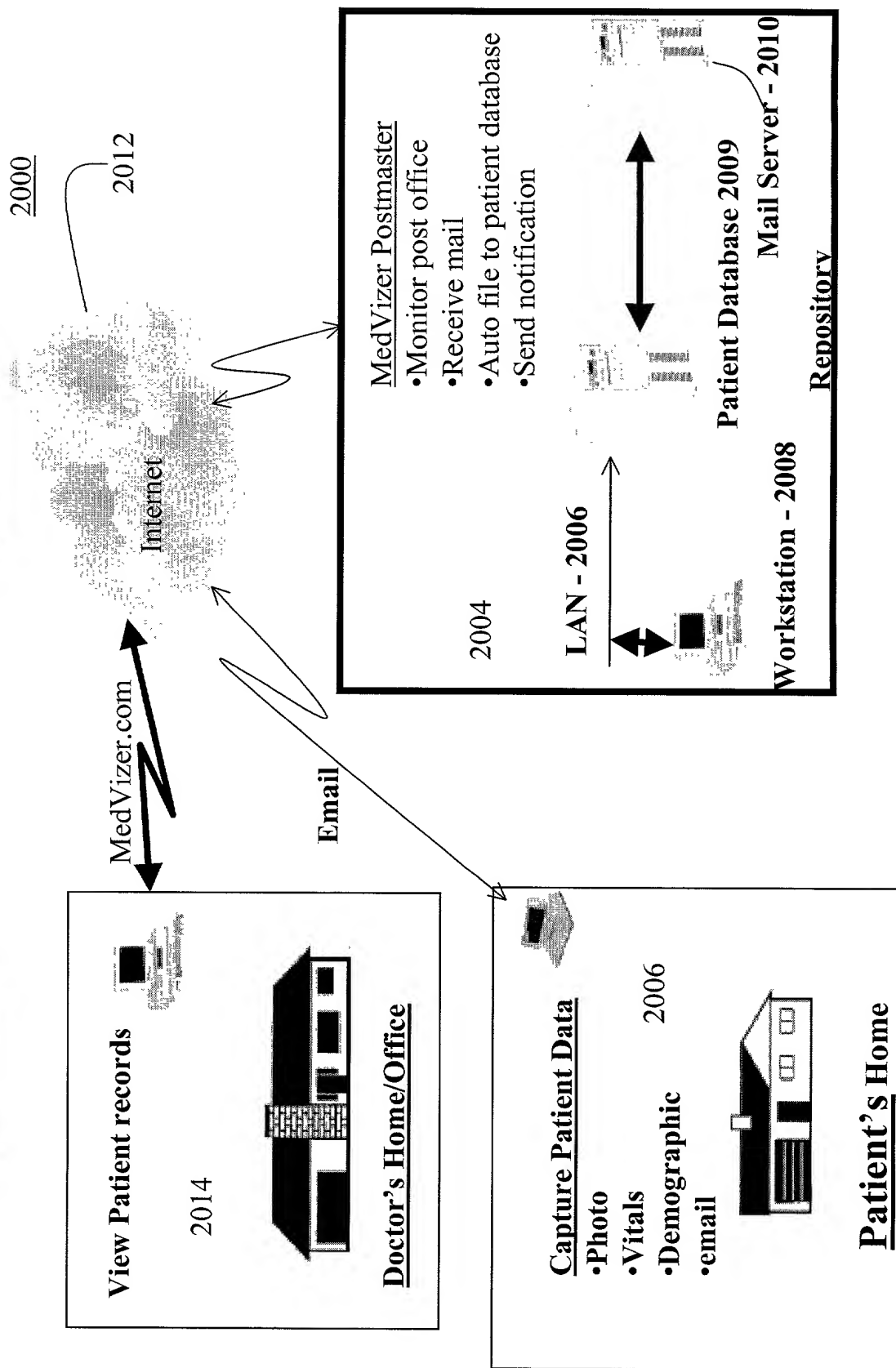


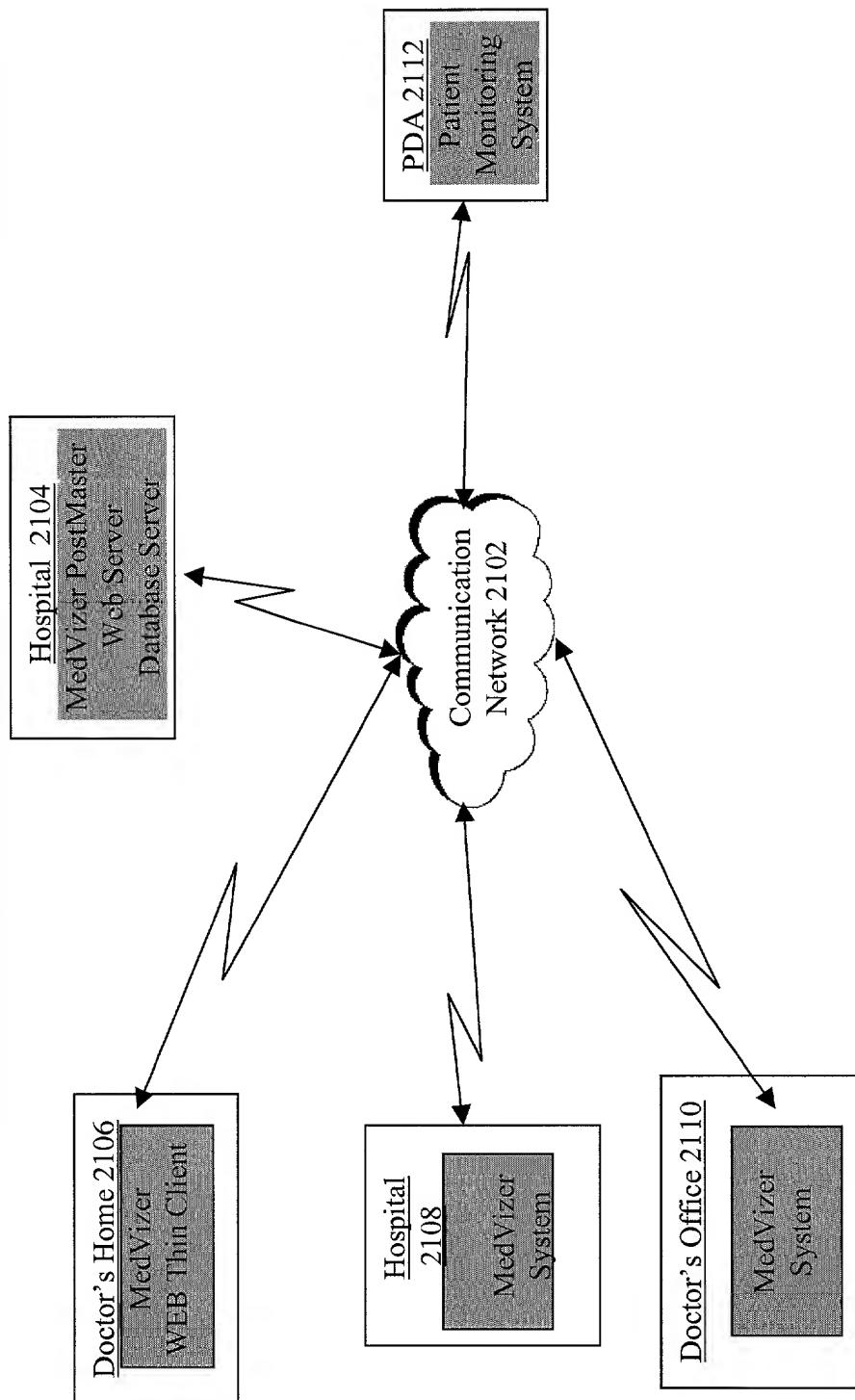
FIGURE 34C



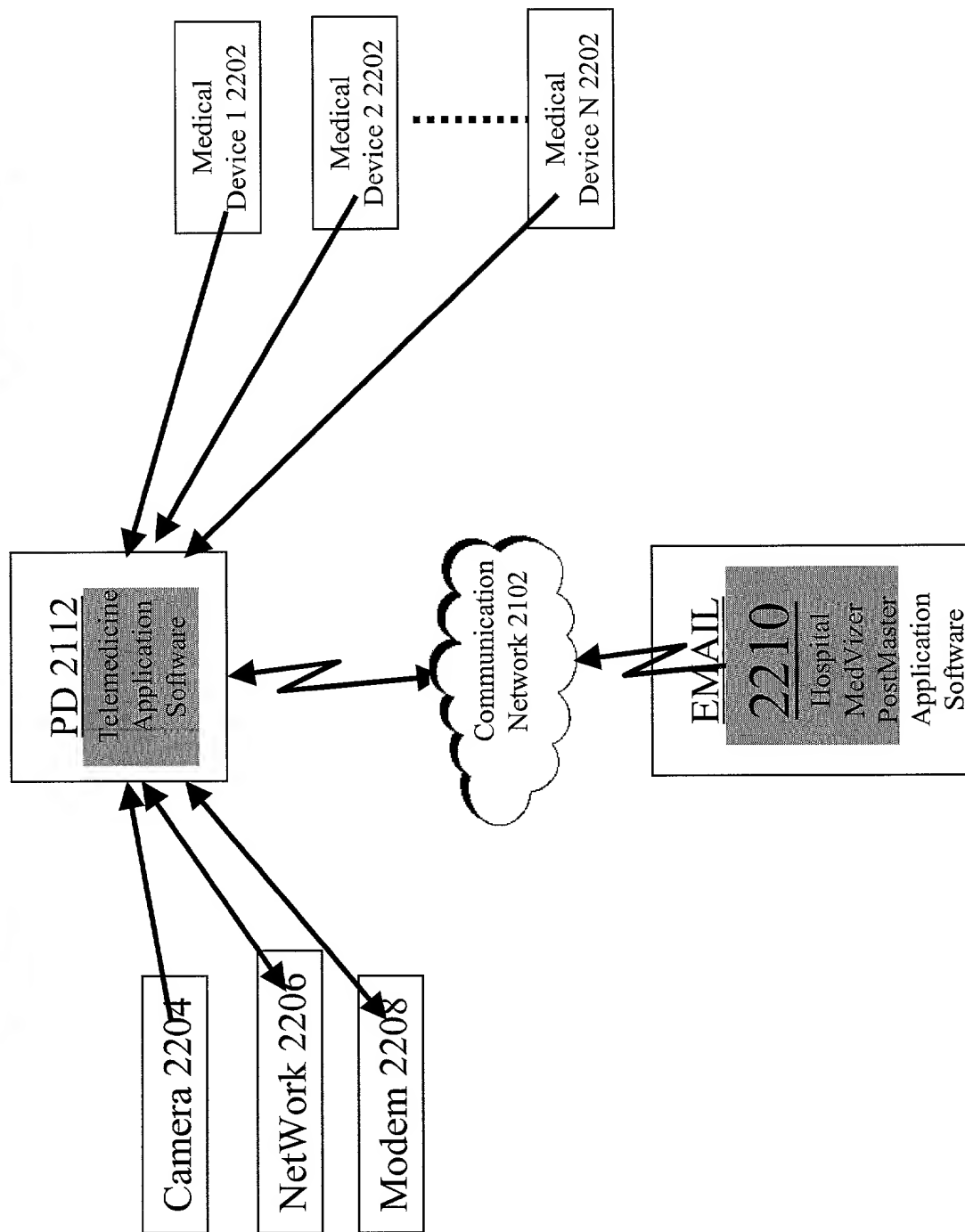
Global Medical Records System – FIGURE 35



PD Complete Home Monitoring System – FIGURE 36



PD Home Monitoring System – FIGURE 37A



PD Complete Home Monitoring System – FIGURE 37B

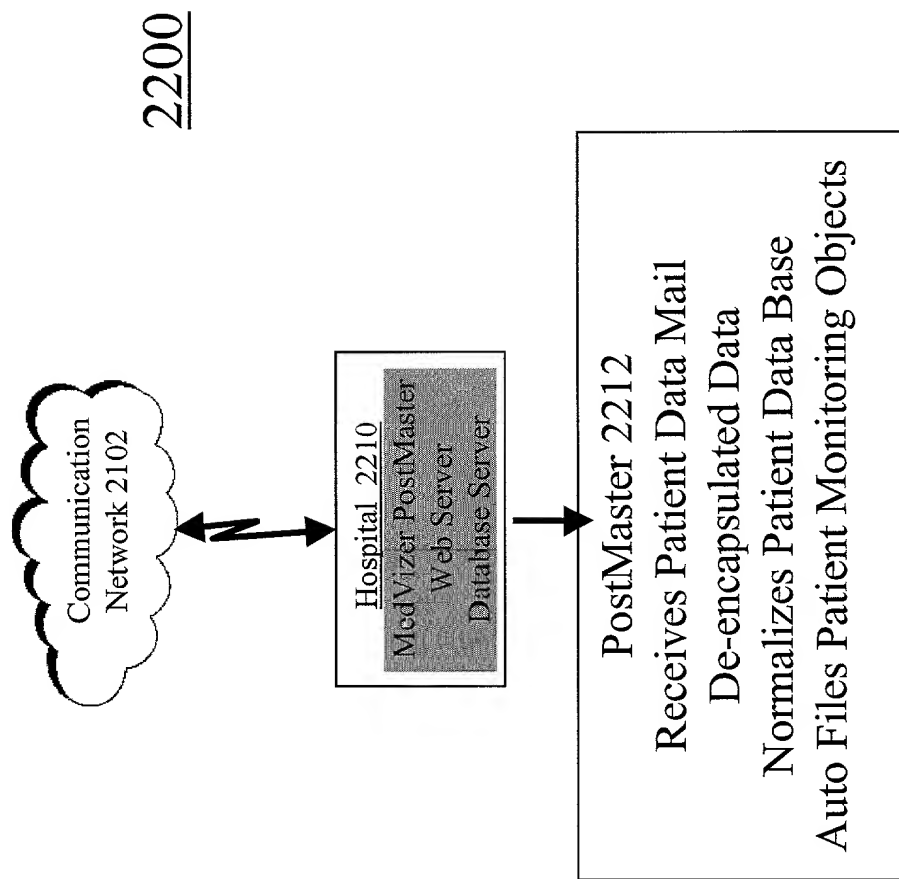


FIGURE 38

2212

